

Appl. No. 10/736,334

Response dated May 12, 2006

Reply to Office Action of November 15, 2005

REMARKS

Claim 1 has been amended to change "a reducing agent" to "a reducing agent for an organic silver salt". Support for the amendment can be found, for example, on page 45, lines 6 to 7. Claims 14 and 16 have been canceled. Claim 15 has been amended so as to depend from claim 1. Claim 17 has been amended so as to depend from claim 2. Hence, no issues of new matters are presented. Upon entry of this amendment, claims 1 to 13, 15, and 17 to 19 will be pending in this application.

I. Response to Claim Objection under 37 CFR 1.75(c)

Claims 14 and 16 are objected under 37 CFR 1.75(c). Claims 14 and 16 have been canceled. Reconsideration and withdrawal of the rejection are respectfully requested.

II. Response to Claim Rejections

A. Rejection of Claims 1 to 14, and 16 under 35 USC § 103(a) as being unpatentable over Okada et al (US Patent No., 6,120,983) in view of Ichikawa et al (US Patent No. 6,593,075)

Okada et al. discloses a compound alleged by the Examiner to be similar to the claimed formula (I) except that it does not disclose that P represents a pyrazolidone group. The secondary reference to Ichikawa et al. is relied on for teaching that a "pyrazolidone compound has been known as a reducing agent." The Examiner asserts that it would have been obvious to substitute compound from Ichikawa et al. into substituent positions on compounds taught by Okada et al.

Applicant respectfully disagrees with the Examiner. The invention of claim 1 is a photothermographic material comprising a specific

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compound represented by formula (I). That is, the compounds represented by formula (I) have an atomic group having at least two mercapto groups and a pyrazolidone group. Although Okada describes a pyrazolidine group and a pyrazoline group, Okada does not describe a pyrazolidone group as a reducing group. Furthermore, in addition to the lack of pyrazolidone group, there is no specific disclosure of a compound having two mercapto groups in Okada et al. Therefore, there is neither disclosure nor suggestion of a compound represented by formula (I) of claim 1 in Okada et al. The reference to Ichikawa et al. does not cure this deficiency. Therefore, one of ordinary skill in the art would not have obtained the invention in claim 1 based on the combined disclosures of Okada et al. and Ichikawa et al.

Furthermore, by containing a compound represented by formula (I), the present invention provides unexpectedly improved results. That is, as shown in Examples of the present specification, for example, on page 135, an unexpected enhancement of sensitivity was obtained by using a compound having two mercapto groups, compared with samples using a compound having only one mercapto group, even though these compounds are common in having a pyrazolidone group as a reducing group.

In order to show the above-mentioned unexpectedly results of the present invention, the applicant conducted a further comparative study as shown in attached Declaration under 37 C.F.R. §1.132. It was found that the photothermographic material of the invention had unexpectedly enhanced sensitivity.

Accordingly, one of ordinary skill in the art cannot obtain the invention in claims 1 to 13 based on the combination of disclosures in Okada et al. and Ichikawa. et al. Claims 14 and 16 have been canceled. Applicant respectfully requests withdrawal of this rejection.

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B. Rejection of Claims 15 and 17 to 19 under 35 U.S.C. §103(a) as being unpatentable over Okada et al. (US Patent No., 6,120,983) in view of Ichikawa et al (US Patent No. 6,593,075), and further in view of EP 1096310A2 (EP '310).

As stated above, the combination of Okada et al. and Ichikawa et al. fails to suggest the invention in claim 1. Again, EP '310 does not cure the deficiencies of the primary references. Therefore, one of ordinary skill in the art would not have obtained the invention in claims 15 and 17 to 19 based on the combined disclosures of Okada et al., Ichikawa et al. and EP '310. Accordingly, applicant respectfully requests withdrawal of this rejection.

C. Rejection of Claims 1 - 19 under 35 U.S.C.102 (e) as being unpatentable over, or in the alternative, under 35 U.S.C. 103(a) as being unpatentable over Ohzeki et al. (US 2004/0033454A1)

This rejection is respectfully traversed. Ohzeki et al. was filed on August 4, 2003 and published on February 19, 2004. The present application was filed with the USPTO on December 16, 2003.

However, filed herewith a verified English-language translation of Applicant's priority document filed with the JPO on December 20, 2002. As a result, Ohzeki et al. is not available as prior art under 35 U.S.C. §102 (e). Accordingly, applicant respectfully requests withdrawal of this rejection.

D. Rejection of Claims 1 - 19 under 35 U.S.C. 103(a) as being unpatentable over Oka et al. (US 2003/0232288) and provisional Rejection of Claims 1 - 19 under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 18, 23, and 29 to 40 of

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U.S. Patent Application No. 10/285,644 (Oka et al.)

The Examiner asserts that although Oka et al. fails to exemplify the atomic group having at least two mercapto groups, it would have been obvious to associate "A" group of the compound taught in Oka et al. one or more group of similar functional group.

Applicant respectfully disagrees with the Examiner. Although Oka et al. describes, as a reducing group, a compound having a pyrazolidone group, there is neither disclosure nor suggestion of compounds having two mercapto groups in Oka et al. That is, Oka et al. neither discloses nor suggests a compound represented by formula (I) of the present invention.

As explained in the above, by containing a compound represented by formula (I), which have at least two mercapto groups, the present invention provides unexpectedly remarkable effect. That is, as shown in Examples of the present specification, for example, on page 135, unexpectedly remarkable enhancement of sensitivity was obtained by using a compound having two mercapto groups, compared with samples using a compound having only one mercapto group, even though these compounds are common in having a pyrazolidone group as a reducing group. Furthermore, such unexpectedly results are shown in the attached Declaration under 37 C.F.R. §1.132.

Accordingly, one of ordinary skill in the art cannot obtain the invention in claims 1 to 13, 15 and 17 to 19 based on the claimed invention of Oka et al. or based on the disclosures in Oka et al. Claims 14 and 16 have been canceled. Applicant respectfully requests withdrawal of this rejection.

III. Conclusion

In view of the above remarks, all the claims pending in the

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application are believed to be allowable. Early and favorable action is respectfully requested.

Respectfully submitted,



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